

f, spiracle; *g*, transverse tracheary trunk; *h*, central nervous mass; *i*, lateral cæca; *k*, *l*, *m*, *n*, unknown organ probably referable to the reproductive system.

Fig. 3. Mandible.

Fig. 4. Upper lip.

Fig. 5. One of the feet with its terminal claw.

Fig. 6. Dorsal shield.

Fig. 7. Ventral shield.

Fig. 8. Portion of a tracheary tube showing its structure.

Fig. 9. *Cul-de-sac* probably connected with the reproductive system, and containing a pyriform striated body.

Fig. 10. Pouch existing on the under surface of the abdomen.

Fig. 11. Anatomy of the larva.

BIBLIOGRAPHICAL NOTICES.

Manual of British Botany, containing the Flowering Plants and Ferns arranged according to the Natural Orders. By CHARLES CARDALE BABINGTON, M.A., F.L.S. &c. 2nd edit. 12mo, pp. 428. Van Voorst, London, 1847.

IN studying the species of British plants, it is of great importance to have a book which contains short and at the same time accurate discriminating descriptions, and one which can be easily taken to the fields for the purpose of consultation. Mr. Babington's 'Manual' combines these requirements. The work is portable, the characters of the species are given with great care from personal observation, and the names have been revised so as to make the nomenclature correspond as much as possible with that adopted by the best botanists in Europe. "It has been the author's wish to adopt in all cases those names which have the claim of priority, unless good cause could be shown for a contrary proceeding; and with this object he has carefully examined nearly all the best European Floras, comparing our plants with the descriptions contained in them, and in very many cases with foreign specimens of undoubted authenticity. In the adoption of genera and species an endeavour has been made, by the examination of the plants themselves, to determine what are to be considered as truly distinct; thus, it is hoped, taking nature as a guide, and not depending upon the authority of any name however distinguished."

The work is founded in some measure on the model of Koch's 'Synopsis Floræ Germanicæ,' and undoubtedly is the best Manual of British Botany which we possess. It is not a compilation, but an original work embracing the results of the author's examination of the species in most cases in their native localities. In giving the characters, the essential and distinguishing points are put in italics, thus calling the attention of the student at a single glance to the marked differences of the species. The natural system of DeCandolle is adopted with some modifications, and the Linnæan system is used as a key to the genera. In this way the work may be said to

combine the artificial and natural methods of classification. The analysis of the Linnæan classes and orders, with the synopsis of the genera at the commencement of the work, render it valuable for beginners.

In the present edition several important additions have been made. There is an excellent analysis of the natural orders of British plants, and there is also an index of popular English names. Some of the more difficult genera, as *Rubus* and *Hieracium*, have been carefully revised. The species which are doubtfully native have been noticed, and all the recent additions to the Flora have been introduced. Many of these additions have already been described by Mr. Babington in the 'Supplement to English Botany,' a work which is now published regularly by Mr. Sowerby, and which well deserves the support of all British botanists.

We have no hesitation in recommending Mr. Babington's 'Manual' as the best guide to the student of practical botany in this country.

The Elements of Botany, Structural and Physiological. By JOHN LINDLEY, Ph.D., F.R.S. &c. 5th edit. 8vo, pp. 238. London, Bradbury and Evans.

Dr. Lindley led the way in this country in the publication of elementary works on botany, embracing a *philosophical* view of the science. His works have long and deservedly held the first place in our universities and schools. We have now a fifth edition of his 'Outline of the First Principles of Botany.' "The author has taken advantage of the opportunity thus afforded him of bringing the work completely up to the present state of botanical knowledge, without however interfering with its original plan, by the introduction of doubtful or merely speculative matter, or of questions which do not interest a student. It was in the outset a book for learners; its purpose was to state plainly and concisely the great facts of the science, and to separate them from the ulterior questions to which they lead; and however much the work may have become extended by the addition of explanatory notes, the latter have never been permitted to appear in a form likely to divert attention from the main points. On the contrary, they have been printed in a different type, which renders them immediately distinguishable, and enables the reader to go through the principal propositions without, in the first instance, occupying his thoughts with their detailed explanation."

It is an admirable synopsis of the important principles of the science, and it is illustrated with excellent woodcuts. The addition of a glossary of technical terms, arranged alphabetically, enhances its value much, and is a great boon to the student. This edition differs from previous ones in not giving an account of the natural systems, nor a detailed description of the natural orders. For these the learner is referred to the author's 'School Botany' and his 'Vegetable Kingdom.' For one who wishes to have a short and comprehensive view of the great facts of the science of botany as regards structure,